

Amendments to the Claims:

Rewrite the claims as set forth below. This listing of claims replaces all prior versions and listings of claims in the application:

1. (currently amended) A method for nested control flow, the method comprising:
setting a context bit to at least one of: a first state and a ~~second state~~ second state;
receiving a first instruction having a plurality of extra bits;
~~determining whether to read~~ reading the context bit based on the plurality of extra bits;
and
~~if the context bit is read, executing~~ executing the instruction when the context bit is in the first state.
2. (currently amended) The method of claim 1 further comprising:
~~upon the executing of the first instruction, maintaining~~ maintaining a counter value
wherein the counter value indicates a nesting depth of context bits that are set to a second state.
3. (currently amended) The method of claim 2 wherein the counter value is stored in a non-dedicated memory device.
4. (original) The method of claim 3 wherein the non-dedicated memory device is a general purpose register.
5. (currently amended) The method of claim 2 further comprising:
prior to setting the context ~~bit~~ bits, resetting the counter value.
6. (currently amended) The method of claim 2 further comprising:
receiving a second instruction having a plurality of extra bits;

~~determining whether to read~~ reading the context bit based on the plurality of extra bits;
~~if the context bit is read, executing~~ executing the second instruction when the context bit
is in the first state; and
~~upon executing the second instruction, maintaining~~ maintaining the counter value.

7. (currently amended) The method of claim 6 further comprising:

~~terminating a computation process using the counter value~~ exiting a nested control flow
using the counter value.

8. (currently amended) An apparatus for nested control flow, the apparatus
comprising:

a processor having a context bit memory device capable of storing a context bit;
a first memory device storing a plurality of instructions, wherein each of the plurality of
instructions includes a plurality of extra bits, and wherein the processor is operative to execute
the plurality of instructions; and
a second memory device operably coupled to the processor, and wherein the second
memory device ~~receiving~~ receives an incrementing counter instruction upon the execution of one
of the plurality of instructions.

9. (original) The apparatus of claim 8 further comprising:

a context bit memory device capable of storing the context bit.

10. (original) The apparatus of claim 8 wherein the second memory device is a
general purpose register.

11. (currently amended) The apparatus of claim 8 wherein the processor:

receives a first instruction having a plurality of extra bits from the first memory ~~and the~~
~~processor device; and~~

~~determines whether to read~~ reads the context bit based on the plurality of extra bits.

12. (currently amended) The apparatus of claim 11 wherein the processor:

executes the first instruction when the context bit is read and is in a first state ~~and the~~
~~processor state; and~~

~~maintaining~~ maintains a counter value wherein the counter value indicates a nesting depth
of context bits that are set to a second state, ~~in response to~~ using the incrementing counter
instruction.

13. (currently amended) The apparatus of claim 12 wherein the ~~process receives~~
processor:

receives a second instruction having a plurality of extra bits from the ~~memory and the~~
~~processor determines~~ first memory device;

~~whether to read~~ reads the context bit based on the plurality of extra ~~bits and if bits;~~
~~the context bit is read, executing~~ executes the second instruction when the context bit is
in a first state ~~and incrementing state; and~~

increments the counter ~~bit in response to~~ value using the incrementing counter
instruction.

14. (currently amended) A graphics processing device comprising:

a plurality of arithmetic logic units, each of the plurality of arithmetic logic units having a
context bit memory device capable of storing a context bit;

a first memory device storing a plurality of instructions, wherein each of the plurality of instructions includes a plurality of extra bits, and wherein the arithmetic logic units are operative to execute the plurality of instructions; and

a second memory device operably coupled to the processor, wherein the second memory device ~~receiving~~ receives an incrementing counter instruction upon the execution of one of the plurality of instructions.

15. (original) The graphics processing device of claim 14 wherein the second memory device is a general purpose register.

16. (currently amended) The graphics processing device of claim 14 wherein each of the plurality of arithmetic logic units:

receive at least one of the plurality of ~~instructions and the arithmetic logic units determine~~
instructions; and

~~whether to read~~ reads the context bit based on the plurality of extra bits.

17. (currently amended) The graphics processing device of claim 16 wherein the plurality of arithmetic logic units:

execute the instructions when the context bit is read and is in a first ~~state and maintaining~~
state; and

maintains a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state, ~~in response to~~ using the incrementing counter instruction.

18. (currently amended) The graphics processing device of claim 17 wherein the plurality of arithmetic logic units are operative to ~~terminate a processing chain utilizing the~~

~~context bit stored in the second memory device~~ exit a nested control flow using the context bit stored in the second memory device.

19. (currently amended) A method for nested control flow, the method comprising:
setting a context bit to at least one of: a first state and a second ~~state~~ state;
receiving a first instruction having a plurality of extra bits;
~~determining whether to read~~ reading the context bit based on the plurality of extra bits;
~~if the context bit is read,~~ executing the first instruction when the context bit is in the first state; and
upon the executing of the first instruction, maintaining a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second ~~state~~, state in a general purpose register.

20. (currently amended) The method of claim 19 further comprising:
receiving a second instruction having a plurality of extra bits;
~~determining whether to read~~ reading the context bit based on the plurality of extra bits;
~~if the context bit is read,~~ executing the second instruction when the context bit is in the first state; and
~~upon executing the second instruction,~~ incrementing the counter value.

21. (currently amended) The method of claim 20 further comprising:
~~terminating a computation processing using the counter value~~ exiting a nested control flow using the counter value.